| Inde | x of Cla | aims |
|------|----------|------|
|      |          |      |

| Application No. | Applicant(s)     |  |
|-----------------|------------------|--|
| 10/619,567      | HIRAMATSU ET AL. |  |
| Examiner        | Art Unit         |  |
| Kiesha L. Rose  | 2822             |  |

| <b>/</b> | Rejected |   | (Through numeral)<br>Cancelled |
|----------|----------|---|--------------------------------|
| =        | Allowed  | + | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla          | aim      |              |                 |          |          | Date            | <b>=</b> |          |          |   |       | Cla                                              | aim      |          |                 |                 | Di       | ate     |          |                                                  |           |                | Cla   | aim        |          |         |          | Date     | ,        |              |                          |
|--------------|----------|--------------|-----------------|----------|----------|-----------------|----------|----------|----------|---|-------|--------------------------------------------------|----------|----------|-----------------|-----------------|----------|---------|----------|--------------------------------------------------|-----------|----------------|-------|------------|----------|---------|----------|----------|----------|--------------|--------------------------|
|              | -        | _            |                 |          |          |                 |          |          |          |   |       |                                                  | 7        |          |                 |                 |          |         |          |                                                  |           |                |       |            |          |         |          |          |          | Ì            |                          |
| Final        | Original | 8/17/04      |                 |          |          |                 |          |          |          |   |       | Final                                            | Original |          |                 |                 |          |         |          |                                                  |           |                | Final | Original   | -        |         |          |          |          |              |                          |
| iĒ           | Ĕ        | 178          |                 |          |          |                 |          |          |          |   |       | ﻧ፫                                               | Ę,       | i        |                 |                 |          |         |          |                                                  |           |                | ίĒ    | Ę.         |          |         |          |          |          |              |                          |
|              |          | <u> </u>     | Ш               |          |          |                 | Ш        |          |          |   |       |                                                  |          |          |                 | $\perp$         | $\perp$  | $\perp$ |          |                                                  |           |                |       |            |          |         |          |          | _        | 丄            |                          |
|              | 1_       | √.           |                 |          |          |                 |          |          |          |   |       |                                                  | 51       |          |                 | _               | $\perp$  | ┸       |          |                                                  |           |                |       | 101        |          | _       | Ш        | _        | $\perp$  | _            | $oldsymbol{\perp}$       |
|              | 2        | L            |                 |          |          |                 |          |          |          |   |       |                                                  | 52       |          |                 |                 | $\perp$  |         |          |                                                  |           |                |       | 102        |          |         |          | $\dashv$ |          | $\bot$       | igspace                  |
|              | 3        | IL.          | Ш               |          |          |                 |          |          |          |   |       |                                                  | 53       |          | $\Box$          | _               |          |         | <u> </u> | $\sqcup$                                         | _         |                |       | 103        |          | _       | Ш        |          | _        |              |                          |
|              | 4        | '√           | Ш               |          |          |                 | Щ        |          |          |   |       |                                                  | 54       |          |                 | _               |          | _       |          | $\sqcup$                                         | _         |                |       | 104        | _        |         |          |          | $\perp$  | $\bot$       | $\bot\!\!\!\!\!\bot$     |
|              | 5        | <u> </u>     | Ш               | _        |          |                 |          | _        |          |   |       | L                                                | 55       |          |                 | _               | $\perp$  | $\bot$  | ļ        | $\sqcup$                                         | _         |                |       | 105        |          | _       | _        | _        | _        | -            |                          |
|              | 6        | <u> </u>     |                 |          |          |                 |          |          |          |   |       |                                                  | 56       | Ш        | _               | 4               | 4        | _       | ļ.,      | $\sqcup$                                         | $\dashv$  |                |       | 106        |          | $\perp$ | Ш        |          |          |              | 44                       |
|              | 7        | <u> </u>     |                 |          | _        | _               |          |          | _        |   |       | <u> </u>                                         | 57       | $\vdash$ |                 | -               | +        |         | -        | $\vdash$                                         | $\dashv$  |                |       | 107        |          | +       | Ш        |          | _        | +            | 44                       |
| -            | 8        | <u> </u>     | $\vdash$        |          |          |                 |          |          | _        |   |       |                                                  | 58       | Н        |                 | -               | +        |         | ┿        |                                                  | _         |                |       | 108        |          | +       |          |          | -        | +            | +                        |
|              | 9        | <u> </u>     | -               |          |          |                 |          |          |          |   |       | <u> </u>                                         | 59       | -        |                 | -               | +        |         | -        | $\vdash$                                         | $\dashv$  |                |       | 109        |          | +       |          |          | +        | +            | +                        |
|              | 10       | <u> </u>     |                 |          |          |                 |          |          |          |   |       | ļ                                                | 60       | $\vdash$ | $\dashv$        |                 | +        |         | -        | ┼╌┤                                              | $\dashv$  |                |       | 110        |          | +       | Н        | -        | $\dashv$ | +            | $+\!\!-\!\!\!-\!\!\!\!-$ |
|              | 11       | <del> </del> | <del>  </del>   |          |          |                 |          | $\dashv$ |          |   |       |                                                  | 61       | $\vdash$ |                 | -               | +        | +       | +        | ┝╌┤                                              | $\dashv$  |                |       | 111<br>112 | +        | +       | Н        | $\vdash$ | +        | +            | +                        |
| <u> </u>     | 13       | <del> </del> |                 |          |          |                 |          |          | $\vdash$ |   |       | <del> </del>                                     | 62<br>63 | Н        | $\dashv$        | $\dashv$        | +        | +       | +        | $\vdash$                                         | $\dashv$  | :::: <b> </b>  |       | 113        |          | +       | H        | $\dashv$ |          | -            | ╌┼╌┤                     |
| -            | 14       | $\vdash$     | $\vdash \vdash$ | $\dashv$ |          | $\vdash$        | Н        | $\vdash$ | $\vdash$ |   |       | <u> </u>                                         | 64       | $\vdash$ | $\dashv$        | -+              | +        | +-      | +        | +-                                               | $\dashv$  |                |       | 113        | $\dashv$ | +       | Н        | $\vdash$ | +        | +            | ┯                        |
| <b>—</b>     | 15       | $\vdash$     | $\vdash \vdash$ | $\dashv$ | -        | $\vdash$        | $\vdash$ | $\dashv$ | $\vdash$ |   |       |                                                  | 65       | Н        | $\vdash$        | $\dashv$        | +        | +       | +        | <del>                                     </del> | $\dashv$  |                |       | 114<br>115 | +        | +       | H        | $\vdash$ | +        | +            | +                        |
| <b>—</b>     | 16       | <u> </u>     | H               | $\dashv$ | _        | Н               | Н        | $\vdash$ | $\vdash$ |   |       |                                                  | 66       | Н        | $\vdash$        | +               | +        | +       | +        | $\vdash$                                         | $\dashv$  |                |       | 116        |          | +       |          | $\vdash$ | +        | +            | +                        |
| $\vdash$     | 17       |              | $\vdash$        | $\dashv$ | -        | $\vdash$        | $\vdash$ | -1       |          |   |       | <u> </u>                                         | 67       | Н        | $\vdash$        | $\dashv$        | +        | +       | +        | $\vdash$                                         | $\dashv$  |                |       | 117        | +        | +       | H        | $\vdash$ | +        | +            | +-!                      |
| <u> </u>     | 18       | -            | -               |          |          |                 |          |          |          |   |       | <u> </u>                                         | 68       | $\vdash$ | $\dashv$        |                 | +        | +       | ┿        | $\vdash$                                         | $\dashv$  | · · · · · ·    |       | 118        | $\dashv$ | +       | Н        |          | $\dashv$ | +            | +                        |
|              | 19       |              | -               |          |          | $\vdash$        |          | -        |          |   |       |                                                  | 69       | -        |                 | -+              |          | +-      | +        | ┤┤                                               |           |                |       | 119        | -        | +       | Н        |          | $\dashv$ | +            | +                        |
| $\vdash$     | 20       |              | H               | -        |          | -               |          |          |          |   |       |                                                  | 70       |          | $\neg$          | -               | +        | ╅       | +-       | <del>                                     </del> | $\dashv$  |                |       | 120        | +        | +       |          |          | $\dashv$ | +            | +                        |
| $\vdash$     | 21       | $\vdash$     | $\vdash$        | -        |          |                 |          |          |          |   |       |                                                  | 71       | Н        | $\dashv$        | -               | +        | +-      | +        | ┤┤                                               | $\dashv$  |                |       | 121        | +        | +       | Н        | $\vdash$ | $\dashv$ | +            | +                        |
| <b>—</b>     | 22       | $\vdash$     | H               | $\dashv$ | $\dashv$ | $\vdash$        | -        | $\neg$   | -        |   |       |                                                  | 72       | $\vdash$ | $\dashv$        | 十               | +        | +       | ╁        | $\vdash$                                         | $\dashv$  |                |       | 122        | _        | +       | H        | $\vdash$ | $\dashv$ | +            | +                        |
| $\vdash$     | 23       | $\vdash$     |                 | $\dashv$ |          | $\dashv$        | $\neg$   | $\neg$   | _        |   |       |                                                  | 73       | $\vdash$ | $\dashv$        | _               | +        | +       | +        | 1                                                | -         | · · · · · ·    |       | 123        |          | $\top$  | H        |          | $\dashv$ | +            | +                        |
|              | 24       |              | Н               | $\dashv$ |          | $\vdash$        | $\Box$   | $\neg$   |          |   |       |                                                  | 74       | H        | $\dashv$        | $\dashv$        | +        | +       | +-       | $\Box$                                           | $\dashv$  |                |       | 124        | _        | +       | $\vdash$ | $\dashv$ | $\dashv$ | +            | +                        |
|              | 25       | $\vdash$     | Н               | $\neg$   |          |                 |          |          |          |   |       |                                                  | 75       | $\Box$   | T               | $\dashv$        | $\top$   | +       | 1        | $\Box$                                           | $\exists$ |                |       | 125        | 1        |         | $\vdash$ |          | $\dashv$ | +            | +                        |
|              | 26       |              |                 | $\neg$   |          |                 |          |          |          |   |       |                                                  | 76       | П        | $\Box$          | $\top$          | $\top$   |         | T        | $\Box$                                           |           |                |       | 126        |          |         |          |          | T        | 十            | +                        |
|              | 27       |              | П               | 一        |          |                 |          |          | $\neg$   |   |       |                                                  | 77       |          | T               |                 | _        |         |          | $\Box$                                           |           |                |       | 127        |          |         |          |          |          | 十            | $\top$                   |
|              | 28       |              |                 | _        |          |                 |          |          |          |   |       |                                                  | 78       | П        | $\neg$          | $\neg \uparrow$ |          | $\neg$  |          |                                                  |           |                |       | 128        |          |         |          |          |          | $\top$       | $\top$                   |
|              | 29       | Γ            | П               |          |          |                 |          |          |          |   |       |                                                  | 79       | $\Box$   | $\Box$          | $\neg$          |          | T       | 1        |                                                  | $\neg$    |                |       | 129        |          | 1       |          |          |          | $\top$       | $\top$                   |
|              | 30       |              |                 |          |          |                 |          |          |          |   |       |                                                  | 80       |          |                 |                 |          |         | Ι        |                                                  |           |                |       | 130        |          |         |          |          |          |              |                          |
|              | 31       |              |                 |          |          |                 |          |          |          |   |       |                                                  | 81       |          |                 |                 |          | Π       |          |                                                  |           |                |       | 131        | $\Box$   | Ι       |          |          |          |              |                          |
|              | 32       |              |                 |          |          |                 |          |          |          |   |       |                                                  | 82       |          |                 |                 |          |         |          |                                                  |           |                |       | 132        |          |         |          |          |          |              |                          |
|              | _33      |              |                 |          |          |                 |          |          |          |   |       |                                                  | 83       |          |                 |                 |          |         |          |                                                  |           |                |       | 133        |          |         |          |          |          |              |                          |
| L            | 34       | _            | Ш               | [        |          | Ш               |          |          |          |   |       |                                                  | 84       |          |                 |                 |          |         |          | Ш                                                |           |                |       | 134        |          |         |          |          |          | $\perp$      | $oldsymbol{\perp}$       |
|              | 35       |              | Ш               |          |          |                 |          |          |          |   |       |                                                  | 85       | Ш        | $\Box$          | _               | $\perp$  |         | 1_       | Ш                                                |           |                |       | 135        |          |         |          |          |          | 丄            | $\perp$                  |
| L            | 36       | <u> </u>     | $\sqcup$        | _        |          | Щ               | Ш        |          | _        |   |       | ldash                                            | 86       | Ш        | Ш               | $\perp$         | $\perp$  | $\perp$ | 1        | Ш                                                |           |                |       | 136        |          | _       |          | $\Box$   |          | $\bot$       | $\bot$                   |
| ļ            | 37       | <u> </u> _   | $\sqcup$        | _        |          |                 | Щ        |          |          |   |       | L                                                | 87       | Щ        | $\sqcup$        | 4               | $\bot$   | $\perp$ | 1        | $\sqcup$                                         |           |                |       | 137        |          | _       |          | $\Box$   |          | $\bot$       | $\bot$                   |
| <u> </u>     | 38       | _            | $\sqcup$        |          |          | 니               | $\sqcup$ |          |          |   |       | <u> </u>                                         | 88       |          | $\sqcup$        | _               | $\perp$  |         | 1_       | $\sqcup$                                         | _         |                |       | 138        |          | 1       |          | $\Box$   | _        | $\bot$       | $\perp \perp$            |
| <u> </u>     | 39       |              | $\vdash \vdash$ | _        |          | $\sqcup$        |          | $\Box$   |          |   |       |                                                  | 89       | $\vdash$ | $\dashv$        | -               | - -      | - -     | ╄-       | $\sqcup$                                         | _         |                |       | 139        | $\dashv$ | ╀-      | _        | $\sqcup$ | _        | +            | 4-                       |
| <b> </b>     | 40       | <u> </u>     | $\vdash \vdash$ |          |          | $\sqcup$        |          |          |          |   |       |                                                  | 90       | $\vdash$ | $\dashv$        | _               | -        | - -     |          | $\sqcup$                                         |           |                |       | 140        | -        |         | <b>-</b> | $\dashv$ |          | <del> </del> | 4                        |
| <u> </u>     | 41       | H            | $\vdash \vdash$ |          | _        | -               | $\vdash$ |          | $\dashv$ |   |       | <u> </u>                                         | 91       | $\vdash$ | $\dashv$        | -               | - -      | -       | ┿        | $\vdash \vdash$                                  | _         |                |       | 141        |          | +       | <u> </u> | $\vdash$ |          | +-           | 4                        |
| $\vdash$     | 42       | $\vdash$     | $\vdash \vdash$ | $\dashv$ | -        | $\vdash \vdash$ | $\vdash$ | $\vdash$ | $\dashv$ |   |       | $\vdash$                                         | 92       | $\vdash$ | $\vdash \vdash$ | +               | +        | +       | +        | $\vdash \vdash$                                  | -         |                |       | 142        | +        | +       | $\vdash$ | $\dashv$ | +        | +            | +                        |
| -            | 43<br>44 | -            | $\vdash \vdash$ |          |          | $\vdash \vdash$ | Н        | $\vdash$ | $\dashv$ |   |       | $\vdash$                                         | 93<br>94 | Н        | $\vdash$        | +               | +        | +       | +        | $\vdash \vdash$                                  | $\dashv$  |                |       | 143<br>144 | +        | +       | $\vdash$ | $\dashv$ | +        | +            | +                        |
|              | 45       |              | $\vdash$        |          |          | $\dashv$        | Н        | -        | $\dashv$ |   |       | <u> </u>                                         | 95       | Н        | $\dashv$        | $\dashv$        | +        | +       | +        | $\vdash$                                         | $\dashv$  |                |       | 144        | +        | +       | $\vdash$ | $\dashv$ | +        | +            | +                        |
| <del> </del> | 46       | -            | $\vdash$        |          | -        | $\vdash \vdash$ | H        | $\dashv$ | $\dashv$ |   |       | <u> </u>                                         | 96       | Н        | $\dashv$        | +               | +        | +       | +        | $\vdash$                                         | $\dashv$  |                |       | 146        | +        | +       | $\vdash$ | $\dashv$ | +        | +            | +                        |
| $\vdash$     | 47       | $\vdash$     | $\vdash$        | $\dashv$ |          | $\vdash$        | Н        | -        | $\dashv$ | - |       | <del>                                     </del> | 97       | $\vdash$ | $\vdash$        | +               | +        | +       | +-       | $\vdash \vdash$                                  | $\dashv$  |                |       | 147        | +        | +       | $\vdash$ | $\vdash$ | +        | +            | +                        |
| <del> </del> | 47       | $\vdash$     | $\vdash$        | $\dashv$ |          | $\vdash$        | Н        | $\vdash$ | $\dashv$ | _ |       | <u> </u>                                         | 98       | $\vdash$ | $\vdash$        | $\dashv$        |          | +       | +        | $\vdash$                                         | $\dashv$  |                |       | 148        | +        | +       | $\vdash$ | $\vdash$ | +        | +            | +                        |
|              | 49       | -            | $\vdash$        | $\dashv$ |          | $\vdash$        | Н        |          | $\dashv$ |   |       | <del>                                     </del> | 99       | $\vdash$ | $\dashv$        | $\dashv$        | +        | +       | ╁        | $\vdash$                                         | $\dashv$  |                |       | 149        | $\dashv$ | +-      | $\vdash$ | $\dashv$ | +        | +            | +                        |
|              | 50       | -            | $\vdash$        | $\dashv$ |          | $\vdash$        | Н        | $\vdash$ | $\dashv$ | - |       | _                                                | 100      | $\vdash$ |                 | $\dashv$        | $\dashv$ | +-      | +        | $\vdash$                                         | $\dashv$  |                |       | 150        |          | +       | $\vdash$ | $\vdash$ | $\dashv$ | +            | +                        |
| Щ_           | _50_     | Ц            | ш.              |          |          | 1               |          |          |          |   | ::::: | L                                                | 100      | لب       |                 |                 | _L       |         |          |                                                  | السا      | :::: <b>:[</b> |       | 130        | !_       |         |          |          |          |              | لبل                      |